

Remarks

In response to the Office Action dated June 09, 2008, Applicants respectfully request reconsideration based on the above claim amendment and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance. Claims 1, 14, 25, 43, 60, 69, 78, 84 and 85 have been amended.

Interview Summary

A telephone interview was conducted on August 8 between the undersigned and Examiner Doan. During the interview it was discussed that the current combination of references fails to describe a traffic log being generated that is specific to a particular packet. No agreement was reached.

Claim Rejections – 35 U.S.C. §112

Claims 1-5, 7-35 and 60-77 stand rejected under 35 USC §112 second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which applicant regards as the invention. Specifically, independent claims 1, 14, 25, 60 and 69 stand rejected for including the recitation “determine the time” which allegedly lacks antecedent basis. The recitation has been amended to read “a time”. As such, the independent claims have antecedent basis. Therefore the rejections may be withdrawn.

Claim Rejections - 35 U.S.C. §103

Claims 1-5, 7-39, and 41-52 and 54-87 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Diebboll (U.S. Pat. 5,886,643), in view of Galand (U.S. Pat. 6, 529,475) and further in view of Messinger et al. (U.S. Pat. 6,687,750). The rejection of these claims is respectfully traversed.

It is respectfully submitted that the combination of Diebboll, Galand, and Messinger fails to describe each and every feature specified in amended independent claim 1. In its rejection, the Office Action concedes that Diebboll fails to describe a) “that a packet state includes a congested state”; b) “the time of creation of the packet log”; and c) that “the histogram file is utilized to monitor network conditions in near real time enabling the detection and correction of network overloads and congestion before network customers are affected”. The Office Action proceeds

by asserting that Galand describes determining the congestion of the network from information extracted from the network packet and describes “real time traffic”.

The Office Action further concedes that the combination of Diebboll and Galand fails to describe the “time of creation of the packet log” and further fails to describe that the “histogram file is utilized to monitor network conditions and enabling detection and correction of network overloads and congestion before network customers are affected”. The Office Action proceeds further by asserting that Messenger cures these conceded deficiencies in the combination of Diebboll and Galand.

However, in addition to the conceded discrepancies above, Applicants respectfully assert that the current set of references fails to describe other claim elements. For example, Applicants respectfully point out that although the Office Action asserts that Diebboll describes “...a traffic log specific to a particular packet, based upon detection of a content of a packet...” the combination of Diebboll, Galand and Messenger actually does not describe the creation of **a traffic log specific to a particular packet**. Applicants respectfully traverse the rejections as more fully discussed below.

Claims 1-5, 7-39, 41-52 and 54-87

Amended independent claim 1 recites, in pertinent part:

“[a] method of monitoring a packet-switched network using traffic logs, comprising...(b) at a first location within the packet-switched network, generating a traffic log specific to a particular packet based upon detection of a content of the packet...”

Applicants respectfully assert that in addition to the conceded deficiencies in the combination of Diebboll and Galand listed above, the combination of Diebboll, Galand and Messenger fails to describe “generating a traffic log **specific to a particular packet** based upon detection of a content of the packet...”.

In its written rejection, the Office Action asserts that Diebboll describes “a traffic log specific to a particular packet based upon detection of a content of a packet” and relies on Col. 2, l. 1-10 to support its assertion. Applicants respectfully disagree.

The cited portion of Diebboll merely describes that a network management system polls network probes that monitor traffic flow and stores the polled data in a plurality of records where a record identifies a probe, a source node, a destination node and a measure of traffic between

the source and destination nodes. (Col. 2, l. 40-47). Applicants respectfully point out that a Diebboll “record” is an **aggregated record of traffic** passing by the probe and is not a traffic log **specific to a particular packet** based upon detection of a content of the packet. Applicants respectfully point to Figure 2 and its associated discussion in Diebboll that explicitly describes a record as a record of aggregated traffic.

Specifically, Diebboll describes that a probe will record the number of packets that it sees pass between node A and node B. (Col. 7, l. 18-40). The conversation between node A and node B includes the protocol used, the type of protocol and the application. (Col. 5, l. 42-51). A record includes a variety of aggregate information. (Col. 6, l. 30-50). Diebboll is absolutely devoid of any description of **generating a traffic log specific to a particular packet**. Creating a record of aggregated traffic passing by a probe is a completely different concept than creating a traffic log specific to every particular packet.

Since Diebboll fails to describe **generating a traffic log specific to a particular packet** based upon detection of a content of the packet, Diebboll fails to describe the subject matter asserted to Diebboll by the Office Action.

Applicants respectfully note that Galand fails to cure this additional discrepancy in Diebboll. Galand is concerned with a congestion detection and control in a packet switched network. Galand describes that when a congestion situation is encountered by a packet at a node the node sets a packet header field to “1”. When the congestion field is detected at the destination end-user, the end-user device sets a congestion field set to “1” in a return packet so that when the return packet reaches the sending end-user a counter is incremented or decremented. The Galand system thereby provides a feedback mechanism to the sending unit prompting it to take congestion control actions. Galand is not describing “generating, ...**a traffic log specific to a particular packet** based upon detection of a content of the packet ...” There is simply no description of a traffic log being created specific to a particular packet described in Galand. Setting a packet header field to “1” or incrementing a counter at a sending device is not generating a traffic log specific to a particular packet. A packet is also not a packet log. As such, Galand fails to cure this discrepancy in Diebboll.

Messenger fails to cure the above discrepancies in the combination of Diebboll and Galand. Messenger is concerned with assembling aggregated network information in a database and then querying the database for information about a network node to be rendered as a visual

display. Messenger describes that routers collect aggregated information about all of the data that passes through them. A reporting application **monitors the state of each network component** as the data transits the network and stores the aggregated information in a network information storage file from which it is subsequently retrieved for display. (Col. 1, l. 64-67). The reporting application appends the new results to the storage files 204-208. The user then manually queries the storage files 204-208 using filters for later use in the visualization application.

Messenger fails to describe “a traffic log **specific to a particular packet** ...” To the contrary, Messenger only describes collecting aggregated data in a file. (Col. 1, l. 40-45). Since Messenger is silent as to generating a traffic log specific to a particular packet, Messenger fails to cure this deficiency in the combination of Diebboll and Galand.

Therefore because none of Diebboll, Galand or Messenger describes “generating, at a first location...**a traffic log specific to a particular packet**...”, their combination also fails to describe “generating...**a traffic log specific to a particular packet**...”. As such, amended independent claim 1 is allowable over the combination of Diebboll, Galand and Messenger for at least his reason due to a lack of a prima facie case of obviousness. Independent claims 14, 25, 36, 43, 60, 69 and 78 recite similar subject matter and are allowable over the combination of Diebboll, Galand and Messenger for at least the same reasons.

Furthermore, Applicants respectfully point out that on page 4 the Office Action concedes that the combination of Diebboll and Galand fails to describe that “...a histogram file is utilized to monitor network conditions...”. Applicants respectfully agree with the Examiner’s observation and also assert that Messenger absolutely fails to cure this additional discrepancy in the combination of Diebboll and Galand.

None of Diebboll, Galand or Messenger describes the use of histogram files. Although the Office Action cites Column 3, l. 28-52 to support its position, that citation merely describes that at a “reporting application constantly monitors the state of each network component” and updates the network information file. (Column 4, l. 14-15). Messenger continues on to describe use of “colored arrows, bar charts and graphs” by the reporting application but is completely silent as to the use of histograms.

Applicants respectfully point out that a histogram is NOT a bar chart. A histogram is a representation of a frequency distribution by means of rectangles whose widths represent class

intervals and whose heights represent corresponding frequencies. *Webster's New Collegiate Dictionary*, G.&C. Merriam Company, Springfield, MA (1973). Contrarily, a bar chart is a graphic means of comparing quantities by rectangles with lengths proportional to the size of the quantities represented. *Id.* The bar chart widths are equal or otherwise irrelevant. Although Messinger describes a bar chart, Messinger fails to describe the use of any histogram, whatsoever. As such, amended independent claim 1 is allowable over the combination of Diebboll, Galand and Messinger for at least this additional and independent reason. Independent claims 14, 25, 36, 43, 60, 69, 78 and 84 recite similar subject matter and are allowable over the combination of Diebboll, Galand and Messinger for at least the same reasons.

Claims 2-5, 7-13, 15-24, 26-35, 37-39, 41-42, 44-48, 61-68, 70-77, 79-83 and 85-87 depend from an allowable independent claim 1, 14, 25, 36, 43, 60, 69, 78 or 84 and are allowable for at least the same reasons discussed above.

Further still, Applicants respectfully note that the Office Action failed to address Applicants' lack of motivation argument on its merits. As such, Applicants reiterate the argument herein.

Applicants respectfully point out that there is no motivation for one of ordinary skill in the art to look to Diebboll as a reference because Diebboll teaches away from the claim recitations. Diebboll specifically describes that the Network Management System (NMS) implements an algorithm which identifies and tags only a subset of all data retrieved from the probes. Diebboll continues on to describe that the subset provides the best picture of the monitored conversation between a source and destination node. Any non-tagged data is ignored. (Col. 6, l. 10-20). Therefore, Diebboll teaches away from the claims that recite "...generating a **traffic log specific to a particular packet** based upon detection of a content of the packet..." because Diebboll only describes tagging and using a subset of the information from the probes.

Because Diebboll teaches away from the claim elements, a prima facie case of obviousness cannot be established. Therefore, amended independent claims 1, 14, 25, 36, 43, 60, 69, 78 and 84 are allowable over the Diebboll in any combination with other references. Claims 2-5, 7-13, 15-24, 26-35, 37-39, 41-42, 44-48, 61-68, 70-77, 79-83 and 85-87 depend from an allowable independent claim 1, 14, 25, 36, 43, 60, 69, 78 or 84 and are allowable for at least the same reasons.

Claims 84-89

Without conceding the correctness of the rejection, claim 84 has been amended to clarify that a computer generates and stores pairs of histograms for each host terminal. Amended independent claim 84 recites, in pertinent part:

“[a] system for analyzing the performance of a packet-switched network where packets traverse multiple networks, the network automatically generating a traffic log specific to a particular packet based upon detection of a content of the packet each time a packet enters or exits the packet-switched network, each traffic log including at least a time the traffic log was created, the address of the packet sender and packet recipient, and the entry and exit packet-switched network nodes, the system comprising...

(b) a computer operable to download the plurality of traffic logs from the traffic log database, to analyze each of the plurality of traffic logs to determine one or more values detected from each of the packets, and to generate and store pairs of histograms, each pair of histograms being generated from information gleaned from the plurality of traffic logs about each of the packets,

wherein at least one pair of histograms is representative of packet traffic passing to and from a host connected to the packet-switched network...”

As discussed above in regards to independent claim 1, the combination of Diebboll, Galand and Messinger fails to describe that the each traffic log of the plurality is specific to an associated packet based upon detection of a content of the packet and fails to describe the use of histograms. As such amended independent claim 84 is allowable for at least these same reasons.

Further, the combination of Diebboll, Galand and Messinger are simply silent as to “...a computer...to generate and store pairs of histograms, each pair of histograms being generated from information gleaned from the plurality of traffic logs about each of the packets, wherein at least one pair of histograms is representative of packet traffic passing to and from a host connected to the packet-switched network...”

Therefore, because the combination of Diebboll, Galand and Messinger fails to describe each and every claim element, a prima facie case of obviousness cannot be established. As such, amended independent claim 84 is allowable over the current combination of references for at least this additional reason. Claims 85-87 depend from an allowable independent claim 84 and are allowable for at least the same reasons.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is invited to call the Applicants' attorney at the number listed below.

No additional fees are believed due. However, please charge any additional fees or credit any overpayment to Deposit Account No. 50-3025.

Date: September 03, 2008

Respectfully submitted,

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